



# Federal Emergency Management Agency

Region IX  
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San Francisco, California 94129

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Dr. Jane R. Summerson, EIS Document Manager  
U.S. Department of Energy  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization Office M/S 010  
P.O. Box 30307  
North Las Vegas, NV 89036-0307

Dear Dr. Summerson:

1... I am writing in response to the request for review that your office has submitted to the Federal Emergency Management Agency (FEMA). The request pertains to the U.S. Department of Energy's Supplement to the Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada (DOE/EIS-0250-D-S). Due to the volume of requests that we receive, we have not performed a detailed review of the project. However, we offer the following comments.

The community affected by this project participates in the National Flood Insurance Program (NFIP). Under this program, the Federal government makes affordable flood insurance available within participating communities. In exchange, the communities adopt certain floodplain management regulations to reduce the risk of flood damage. In support of the NFIP, FEMA has undertaken a nationwide effort to identify and map flood hazards. These flood hazards are shown on Flood Insurance Rate Maps (FIRMs), which FEMA produces for each community participating in the program. The FIRMs show identified Special Flood Hazard Areas (SFHAs). The SFHA is an area that is subject to inundation during a flood having a 1-percent chance of occurrence in a given year (also known as the base flood or 100-year flood).

Flood insurance is required for structures within SFHAs in order to protect Federal financial investments and to reduce the cost of disaster assistance. Further, the floodplain management regulations adopted by participating communities affect the construction and improvement of structures located in SFHAs. Accordingly, FEMA's concerns with the project are associated with its location in relation to identified SFHAs.

### *Floodplain Management Criteria for Construction in SFHAs*

Our first area of concern relates to structures that may be part of the project. For new or substantially improved structures (including manufactured housing) located within SFHAs,

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1... the NFIP regulations require a community to:

- Issue permits for construction.
- Ensure that the lowest floor (including basement) is elevated to or above the base flood elevation shown on the community's FIRM.
- Ensure that any enclosed areas below the base flood elevation are used solely for access, temporary storage, or parking; are constructed of flood-resistant materials; and are properly vented to allow equalization of hydrostatic pressure in the event of a flood.
- Maintain records of permits and lowest floor elevations.

For purposes of floodplain management, a "structure" is defined as any walled and roofed building that is located principally above ground. A structure is defined as being "substantially improved" if the cost of the improvements is greater than 50 percent of the market value of the structure.

These requirements are the minimum floodplain management criteria that must be adopted by a community for participation in the NFIP. Each community that participates in the NFIP has a floodplain management ordinance that reflects these requirements. If the community's ordinance contains more restrictive criteria, the requirements of that ordinance take precedence over the minimum requirements of the NFIP.

#### *Effects of the Project on Flood Hazards*

Our second area of concern relates to the potential effects of the project on flood hazards. If the project will physically affect flood hazards shown on the FIRM, it is subject to the following:

- The project should not worsen flood hazards to adjacent properties, particularly if those properties contain insurable structures.
- FEMA has designated floodways along certain flooding sources. The floodway, which is the area that must remain free of development to ensure the safe passage of floodwaters, is shown on the FIRM. The NFIP regulations prohibit construction in the floodway unless it can be demonstrated that the construction will not cause any increase in base flood elevations.

The FIRM should accurately reflect changes to flood hazard information, such as shifts in floodplain boundaries or changes in base flood elevations, once construction is completed. If construction results in any change to the flood hazard data shown on the FIRM, the community must request a revision to the FIRM within 6 months of completion of the work. FEMA has developed an application/certification package that

1 cont the community must use to request a revision. This package is available electronically on FEMA's website at [www.fema.gov/mit/tsd/FRM\\_form.htm](http://www.fema.gov/mit/tsd/FRM_form.htm).

You can contact the community to obtain a copy of the current FIRM. Additional copies may be obtained for a fee from our Map Services Center; information about ordering maps is available on our website at [www.fema.gov/msc](http://www.fema.gov/msc).

We encourage you to work closely with the floodplain administrator for the affected community to ensure that the proposed project complies with the community's floodplain management ordinance and to ensure that the goals of the NFIP are met.

Thank you for providing us with the opportunity to comment on this project. If you have any questions, or if we can be of further assistance, please do not hesitate to contact our NFIP branch at 415.923.7175.

Sincerely,



Sandro Amaglio  
Regional Environmental Officer